



## Patent Claims:

1           1. A spinneret for spinning thermoplastics with a  
2           central polymer melt inlet passage, a filer arrangement (2)  
3           comprised of a plurality of filter disks of different filter  
4           fineness which are fixedly bonded together by cold pressing, a  
5           spinneret plate (3) and a housing (1), which closely surrounds and  
6           receives the filter arrangement (2) and the spinneret plate (3)  
7           characterized in that said filter arrangement (2) has no sealing  
8           enclosure and is comprised of a material with a higher thermal  
9           expansion coefficient than that of the material from which the  
10          housing (1) surrounding it is fabricated.

1           2. A spinneret for spinning of thermoplastics having a  
2           central polymer melt inlet passage, a filter arrangement (2)  
3           comprised of one or more filter disks of different filter fineness  
4           and optional type, a spinneret plate (3) and a housing (1)  
5           surrounding and receiving the filter arrangement (2) and the  
6           spinneret plate (3) characterized in that the spinneret plate (3)  
7           is comprised of a material with a higher thermal expansion  
8           coefficient than that of the material from which the housing (1)  
9           surrounding it is fabricated.

10          3. A spinneret for spinning of thermoplastics having a  
11          central polymer inlet passage, a filer arrangement (2) comprised of

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12 a plurality of filter disks of different filter fineness which are  
13 fixedly bonded together by cold pressing with one another, and a  
14 spinneret plate (3) and a housing (1) closely surrounding and  
15 receiving the filter arrangement (2) and the spinneret plate,  
16 characterized in that the said filter arrangement (2) has no  
17 sealing enclosure and the filter arrangement (2) and the spinneret  
18 plate (3) are comprised of materials with a higher thermal  
19 expansion coefficient than the material from which the housing (1)  
20 surrounding them is fabricated.

1 4. The spinneret according to claim 1 characterized in  
2 that the spinneret plate (3) and/or the filter arrangement (2) are  
3 composed of austenitic steel like for example Nos. 1.4301, 1.4541,  
4 1.4580 or a material with a similarly high thermal expansion  
5 coefficient and that the housing (1) surrounding them is fabricated  
6 from a material with a lower coefficient of thermal expansion like,  
7 for example No. 1.4057 or a similar chromium steel or refractory  
8 material.

1 5. The spinneret according to claim 1 characterized in  
2 that the dimensioning is so selected that the fit between the outer  
3 diameter of the spinneret plate (3) and/or the filter arrangement  
4 (2) on the one hand and the bore receiving it in the surrounding  
5 housing (1) on the other hand provides a slight play fit at room  
6 temperature which is transformed at operating temperatures based

7 upon the different expansions of the parts, into a self-sealing  
8 radial press fit.

1           6. The spinneret according to claim 2 characterized in  
2 that the spinneret plate (3) is comprised of a material with a  
3 higher thermal expansion coefficient than the material of the  
4 housing (1) surrounding it and that the spinneret plate (3) has in  
5 its lower half additionally a thread provided which is directly  
6 screwed into the housing (1) whereby the thread and the stop of the  
7 spinneret plate (3) in the housing (1) are so formed that the  
8 spinning orifice pattern always has the same orientation so that  
9 the correct blast on the filaments as they are spun is ensured by  
10 the screwing of the spinneret plate (3) to its stop.

1           7. The spinneret according to claim 1 characterized in  
2 that the housing (1) has at its lower end a projecting collar which  
3 has at least three grooves for receiving a tool for screwing the  
4 spinning system in and out and in that the spinneret plate (3) is  
5 thereby protected against detrimental contact during handling.

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